radiation manipulation effect selected from the group of radiation manipulation effects including diffraction, scattering and diffusion of radiation.

16. (Amended) An apparatus according to claim 11, wherein, in use, the at least one sensor is defocused by a distance greater than a size of the respective spot.

18. (Amended) An apparatus according to claim 11, wherein the at least one sensor comprises a photodiode with small detection area.

19. (Amended) An apparatus according to claim 11, wherein the at least one sensor comprises a charge-coupled device (CCD).

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20. (Amended) An apparatus according to claim 11, wherein the at least one sensor further comprises a lens.

21. (Amended) An apparatus according to claim 11, wherein the at least one sensor is moveable so as to perform a scan of the radiation emanating from the spot.

22. (Amended) An apparatus according to claim 11, further comprising a calculation unit for determining properties of the apparatus from the measurements taken by the at least one sensor.

23. (Amended) An apparatus according to claim 21, further comprising actuators constructed and arranged to adjust said apparatus to at least partially compensate for deviation from optimal of any of the determined properties based on signals from said calculating unit.

24. (Amended) A method of manufacturing a device including operating a lithographic projection apparatus comprising:

a radiation system, to provide a projection beam of radiation;

a first object table to hold a mask at a mask plane;

a second object table to hold a substrate at a substrate plane;

a projection system to image irradiated portions of the mask onto target portions of the substrate;